

Listing of Claims:

1.-36. (canceled)

37. (currently amended) A capillary particle electrophoretic mobility distribution determining apparatus comprising: a holder for a capillary cell adapted to contain a dispersion; a light source; a detector adapted to detect light scattered from a detection zone of the capillary; electric field generating electrodes adapted to generate an electric field in the region of the detection zone; a controller adapted to control the electric field applied by the electrodes; a signal processor adapted to process the signals detected in use by the detector to determine a velocity mobility distribution; and in which the controller is adapted to apply an electric field at a first[[,]] relatively low[[,]] frequency and at least a second relatively high frequency, the first frequency being low enough that better velocity distribution resolution is achieved in use than could be achieved at the second frequency, and the second frequency being high enough that the measured velocity distribution is substantially unaffected by electro-osmotic flow; and in which the processor is adapted in use to modify the particle velocity distribution spectrum obtained at the first frequency by shifting it by an offset amount to remove the electro-osmotic velocity, the offset amount being determined using information from measurements at both the first and second frequencies of field reversal.

38. (original) Apparatus according to claim 37 in which the detection zone is adapted to be substantially at the centre of the cross-section of the capillary.

39. (original) Apparatus according to claim 37 in which the light source is a laser and laser doppler velocimetry is used to obtain the first and/or second particle velocity distribution.

40. (original) Apparatus according to claim 37 which comprises a capillary cell.

41. (original) Apparatus according to claim 37 in which the high frequency measurements are, in use, used to establish a mean velocity for at least one peak and the mean velocity of the

equivalent peak at low velocity is used to determine the offset value (measured mean velocity particle peak at low frequency minus mean velocity of particle peak at high frequency equals the electro osmotic offset).

42. (original) Apparatus according to claim 37 in which the first frequency is 1 Hz.+-.1 Hz.

43. (original) Apparatus according to claim 37 in which the second frequency is at least 40 Hz.

44. (original) Apparatus to claim 37 in which the controller applies a square wave field or a sinusoidal field.

45. (original) Apparatus according to claim 37 in which the detected signals are gated to ignore detected signals generated at a time close to the change of direction of movement of the particles.

46.-53. (canceled)